PATENT

Attorney Docket :
033988 R 003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:	)	
	)	
Harold HALL	)	
	)	
U.S. Serial No.: 09/011,160	)	Examiner: Marianne S. Ocampo
	)	
Filed: January 20, 1998	)	Group Art Unit: 1723

For : A MAGNETIC FILTRATION DEVICE

DECLARATION UNDER 37 C.F.R. §1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Declaration of Dr. Philip J. Grundy

I, Philip Grundy, declare as follows:

1. I am a professor of materials physics at the Joule Laboratory at the University of Salford, England and reside at 10 Norris Road, Sale, Cheshire M33 3GN, UK.
I am a person of skill in the technical discipline of the present invention. Attached hereto is a copy of my curriculum vitae.

2. I have read U.S. Patent Application. No. 09/011,160 entitled "A MAGNETIC FILTRATION DEVICE" including the currently pending claims in that application, claims

12-41. Additionally, I have read the May 15, 2002, January 23, 2003, 2003 and October 1, 2003 Office Actions issued by the United States Patent and Trademark Office relating to this application and the Responses filed on October 15, 2002 and July 23, 2003.

3. I understand that the U.S. Patent and Trademark Office Examiner has rejected claims 12-16, 18, 22, 23, 25-30, 33, 34, and 36-41 under 35 U.S.C. 103(a) as obvious based on Morrick (U.S. Pat. No. 5,389,252). I have fully reviewed and understand the Morrick document.

4. I understand the Examiner has interpreted Morrick as rendering obvious the use of a particle-collecting disk (metal plate) on both sides of the magnet. From a review of the Office Action, it is considered that the Examiner bases this conclusion on the following statement in column 3, lines 54-59 of Morrick, "Using simple tests of magnetic strength, it is possible to demonstrate that the apparent force of the magnet is increased when the disk 26 is present, and is further increased when the magnet/disk combination is placed on the oil filter, i.e. with metal on both sides of the magnet".

5. It is my opinion that the Examiner's conclusion that the statement in Column 3, lines 54-59 indicates (or suggests) the placement of a second disk to the opposite side of the magnet as that of the first disk represents an inaccurate interpretation of the teachings and Figures of Morrick.

6. For example, my understanding from a review of the Office Action is that the Examiner interprets the wording "metal on both sides of the magnet" to indicate (or suggest) the presence of two particle-collecting disks. However, when the passage is read

as a whole, a person of ordinary skill in the art would interpret the wording "metal on both sides of the magnet" as referencing the disk 26 on one side of the magnet and the filter cover plate (which is known by those of ordinary skill in the art to be made of metal) on the opposite side of the magnet. In other words, the language "with metal on both sides of the magnet" is merely referencing back to the combination being placed on the oil filter (hence "i.e.,"), and is not in any way suggestive of adding a second metal disk. Again, it is my opinion that it would have been clear to one of ordinary skill in the art that the passage which is relied on by the Examiner refers to the particle collecting disk 26 on one side of the magnet and the metal filter cover plate 4 at the opposite side of the magnet when the "magnet/disk combination is placed on the oil filter."

7. Moreover, a review of the entire reference even further clarifies that the correct interpretation of the relied upon, above quoted phrase is that there is a disk 26 on one side of the magnet and a metal filter cover plate at the opposite side of the magnet representing the other "metal" relative to the "metal on both sides of the magnet". For example, at column 3, lines 47-54, Morrick sets forth: *"The use of the magnetizable disk 26 greatly adds to the magnetic force exerted by the magnet 24. The permanent magnet 24 which is positive on one surface, negative on the other, located between the filter coverplate [sic] 4 and collecting disk 26 dramatically increases the magnetic holding power on the collecting disk 26 in comparison to the magnet 24 alone."*

8. Reference is also made to column 2, lines 45-56, which states: *"The permanent annular magnet 24 is magnetically secured atop the inlet cover plate 4 with the hole in its center aligned with the aperture 14. The particle-collecting disk 26 is magnetically secured atop the permanent magnet 24 with the hole in its center also aligned with the aperture 14.*

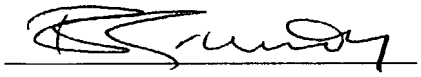
The annular magnet 24 and particle-collecting disk 26 are held in place both by magnetic attraction to the inlet cover plate 4 and by the oil filter exit pipe 18 on which passes through the magnet 24 and particle-collecting disk 26 during attachment of the oil filter 2 to the mounting base 22." In addition, column 3, lines 8-15 set forth: *"Furthermore, the magnetically-connected magnet 24/disk 26 combination must be sufficiently thin to permit the oil filter 2 to mount securely to the mounting base 22 and to permit adequate compression of the rubber gasket 32 by the mounting base 22 to ensure a tight seal between the oil filter 2 and the mounting base 22, preventing oil from leaking while entering or leaving the mounted filter 2."* In addition, throughout the specification of Morrick, reference is made to only one particle-collecting disk. Moreover, each figure also shows only a single particle-collecting disk. Nowhere does Morrick suggest including two particle-collecting disks.

9. Accordingly, it is my opinion that the Morrick patent in no way teaches using a particle collecting disk on both sides of a magnet.

10. I declare, under penalty of the perjury laws of the United States, that all statements made herein of my own knowledge are true and that all statements made based on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code, and that such

willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Respectfully submitted,

By : 

Philip J. Grundy

Date Signed : 24/03/04

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CURRICULUM VITAE

NAME:
Philip James Grundy.

PRESENT POSITION:
Professor of Materials Physics, University of Salford.

PERSONAL DETAILS:
Born - 26 March 1940, British Nationality, Married with two children.

EDUCATION AND ACADEMIC DEGREES:
Edgar Allen Scholar at the University of Sheffield,
1st Class Honours B.Sc. in Physics, 1961.
Ph.D., University of Sheffield ,1964.
D.Sc., University of Sheffield, 1983.

PROFESSIONAL QUALIFICATIONS:
C.Phys., C. Eng., F. Inst. P.

EMPLOYMENT:
Research Associate, Cavendish Laboratory, University of Cambridge, 1964-1967.
Lecturer, University of Salford, 1967-71
Visiting Professor, Twente University of Technology, The Netherlands,1971.
World-Trade Fellow, IBM Res. Labs, Yorktown Heights, U.S.A., 1972-1973.
Lecturer, Senior Lecturer and Reader, 1973 - 91, University of Salford.

UNIVERSITY COMMITMENTS:
Member - Science Faculty Board, 1975-1980 and 1990-1995.
Member - Senate, 1985-1988 and 1990-1998
Member - Senate Academic Staffing Committee, 1986-1988.
Member - Engineering Faculty Board, 1988-.1992
Member - University Council 1985-1987

RESEARCH INTERESTS AND FUNDING:
Group Leader, Magnetic Materials and Microstructures Research Group, 1983 to date. The main theme of my Group's research is the investigation and correlation of the fabrication dependent microstructural and magnetic properties of technological magnetic materials
The Group has received substantial support for its work from the SERC, EPSRC, British and US industry and the Ministry of Defence/DRA. In the period 1990-2003 this has amounted to over £2.0M in grants and contracts.

Institute of Physics:
- Magnetism Group: Committee member, 1981-1983, Secretary, 1984-1988 and Chairman, 1988-1990.
- Member, Institute of Physics Solid State Physics Sub-Committee, 1986-1991.

Science and Engineering Research Council (SERC) then Engineering and Physical Sciences (EPSRC) Committees (1990 – todate):
- Member, SERC Science Board Instrument Development Panel, 1991- 1994
- Member, SERC Magnetism and Magnetic Materials Initiative Panel,1991-1994
- Member, SERC Materials Commission Equipment Panel, 1992-1994

- Member, EPSRC Functional Materials College 1995- to date.
- Member, EPSRC Advanced Magnetics Programme Review Panel 1997
- Member, Rutherford Appleton Lab. CRISP/ISIS ISP3 Project Panel. 1999 -

International Conference Organisation (1990 - todate):

- Treasurer and Member of the Steering and Organizing Committees, International Magnetics Conf. - INTERMAG, Brighton, 1990.
- Member of Steering and Programme Committees, International Conf. on Magnetism - ICM, Edinburgh, 1991.
- Programme Committee Chairman - ICMFS (International Coll. on Magnetic Films and Surfaces), Glasgow, 1991.
- Member of Overseas Committee of the Magneto-Optical Recording International Symposia, Tokyo, 1991, Tucson, 1993, Tokyo, Sept. 26-29 1994.
- Member, UK Advisory Committee 13th Int. Workshop on Rare Earth Magnets and their Applications and 18th Int. Symp. on Anisotropy and Coercivity in Rare Earth -Transition Metal Alloys, Univ. of Birmingham, 11-14 Sept. 1994.
- Member, Int. Advisory Board and Publications Committee, 2nd Int. Symp. on Metallic Multilayers, Univ. of Cambridge, 11-14 Sept. 1995.
- Programme Co-chairman, 6th Magnetic Recording Media Conf., University of Oxford, July, 1995.
- Steering committee member, 13th Conf. on Ternary and Multinary Compounds, University of Salford, September 1997.

Invited Speaker – International Conferences (1990 - todate):

- NATO Avanced Institute on The Science and Technology of Nanostructured Magnetic Materials, Crete, June/July 1990
- International Workshop on Superstructured Magnetic Materials, Univ. of Nagoya, Japan, April 1991
- International Workshop on Novel Properties in Magnetic Multilayers, Univ. of Nagoya, Feb., 1993
- 2nd International Symp. On Thin Films and their Applications, Cairo, October 1995
- NATO-ASI on magnetic hysteresis in novel magnetic materials, Mykonos, Greece, July 1996.
- 16th Annual conference on properties and applications of magnetic materials, Chicago, May 1997.
- Ferrimagnetic nanocrystalline and thin film magneto-optical and microwave materials, NATO ARW, Sozopol, Bulgaria, Sept/Cot/ 1998.
- International Conference on Magnetic Materials, Saha Inst. of Nuclear Physics, Calcutta, India, October 2000.

PUBLICATIONS:

Over 150 papers in premier refereed scientific journals, including five review articles and book chapters, and one book ("Electron Microscopy in the Study of Materials", PJ Grundy and GA Jones, Edward Arnold, 1976).